

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Listing of Claims:

1. (Currently Amended) An optical switch comprising:

optical-path switching elements for switching one optical path to another optical path ~~in order~~ to allow one light beam for optical communication emitted from one of at least one input optical fiber used for inputting beams ~~out of one or a plurality of input optical fibers~~, to be incident on one of at least one output optical fiber from which beams are outputted ~~out of one or a plurality of output optical fibers~~;

a photo-sensor;

light guiding means for guiding the beam ~~to be incident on the output optical fiber~~ to the photo-sensor; and

control means for controlling ~~the~~ an angle of each of the optical-path switching ~~element~~ elements based on ~~the basis of a~~ detection signal obtained through the photo-sensor.

2. (Currently Amended) The optical switch according to Claim 1, wherein each of the optical-path switching ~~element~~ elements includes a galvanometer mirror.

3. (Currently Amended) The optical switch according to Claim 1, wherein the light guiding means is ~~constructed so as~~

adapted to guide a light beam transmitted through at least one of
the optical-path switching ~~element~~ elements to the photo-sensor.

4. (Currently Amended) The optical switch according to
Claim 3, wherein the light guiding means is ~~constructed so as~~
adapted to split ~~a~~ the light beam transmitted through at least
one of the optical-path switching ~~element~~ elements using a beam
splitter and then to guide ~~the~~ a beam split from the light beam
to the photo-sensor.

5. (Currently Amended) The optical switch according to
Claim 3, wherein the light guiding means includes the
photo-sensor ~~comprising~~ , which comprises (i) a base having a
hole through which ~~a light beam passes,~~ the light beam being
transmitted through at least one of the optical-path switching
~~element~~ elements ~~passes,~~ and (ii) at least two ~~or more~~ light
receiving elements disposed around the hole ~~on~~ in the base.

6. (Currently Amended) The optical switch according to
Claim 1, wherein the light guiding means is ~~constructed so as~~
adapted to partially split a light beam transmitted through the
output optical fiber and to allow the photo-sensor to receive ~~the~~
a beam split from the light beam.

7. (Currently Amended) The optical switch according to Claim 6, wherein the light guiding means comprises:

an the output optical fiber for capturing a light beam transmitted through at least one of the optical-path switching ~~element~~ elements;

a photocoupler which is disposed on an output terminal of the output optical fiber and which splits the beam into a beam for the photo-sensor and a beam for communication; and

a sensor fiber for guiding the split beam ~~for a fiber used~~ for the photo-sensor to the photo-sensor, ~~and~~

wherein each optical-path switching element is ~~constructed so as~~ adapted to be oscillated ~~small~~ when a driving signal with a predetermined frequency is supplied thereto.

8. (Currently Amended) The optical switch according to Claim 7, wherein each of the optical-path switching ~~element~~ elements is ~~constructed so as~~ adapted to be oscillated ~~small~~ in two directions.

9. (Currently Amended) The optical switch according to Claim 8, wherein the driving signal comprises driving signals to be supplied to each of the optical-path switching ~~element~~ elements have different frequencies so that the optical-path

~~switching element is~~ elements are enabled to be oscillated ~~small~~
in the two directions.

10. (Currently Amended) An optical switch comprising:

optical-path switching elements for switching at least one
optical path to another optical path ~~in order~~ to allow one light
beam for optical communication emitted from one of at least one
5 input optical fiber used for inputting beams ~~out of one or a~~
~~plurality of input optical fibers~~, to be incident on one of at
least one output optical fiber from which beams are outputted ~~out~~
~~of one or a plurality of output optical fibers~~;

a photo-sensor;

10 light guiding means for guiding the beam ~~to be incident on~~
~~the output optical fiber~~ to the photo-sensor; and

control means for adjusting ~~the~~ an angle of each of the
optical-path switching ~~element~~ elements based on ~~the basis of a~~
detection signal obtained through the photo-sensor to adjust at
15 least one of ~~the~~ a relative position and ~~the~~ an angle of the
beam.